

**IN THE CLAIMS:**

1. (PREVIOUSLY PRESENTED) A process for subterranean waste disposal and processing within a spent oil well, said process comprising the steps of:

1) providing a sealed, empty, subterranean, spent oil well containing halophilic, thermophilic, and methanogenic microbes therein;

2) providing a waste receiving and processing system, said waste receiving and processing system comprising a series of buildings and plants in operative communication with one another and a series of pipes operatively connecting said buildings and plants of the waste receiving and processing system to said subterranean spent oil well,

said waste receiving and processing system having:

a) a waste receiving and mechanical processing plant,

b) a pumping plant, and

c) a redox tank, and

d) an equipment housing building,

3) receiving and mechanically pulverizing waste and treating said waste such that it is transformed into slurry; and

4) disposing of said slurry in said spent oil well.

2. (CANCELLED)

3. (PREVIOUSLY PRESENTED) The process for subterranean waste disposal and processing within a spent oil well of claim 1, further comprising the steps of providing said pumping plant with an inlet conduit coupling said pumping plant to said spent oil well and pumping said treated slurry into said spent oil well.

4. (PREVIOUSLY PRESENTED) The process for subterranean waste disposal and processing within a spent oil well of claim 3, further comprising the steps of delivering slurry from said pumping plant to said redox tank and storing said treated slurry in said redox tank.

5.(PREVIOUSLY PRESENTED) The process for subterranean waste disposal and processing within a spent oil well of claim 4, further comprising the step of providing said equipment housing building with:

- a) a ventilation conduit,
- b) a specimen collection conduit,
- c) an electronic monitoring pipe,
- d) a displaceable chamber extraction conduit, said chamber extraction conduit having displacement means connected thereto for vertical displacement of said chamber extraction conduit thereby enabling gaseous samples to be obtained from different levels within said spent oil well, and
- e) a gas-burning electricity generating subsystem.

6.(PREVIOUSLY PRESENTED) The process for subterranean waste disposal and

processing within a spent oil well, as in claim 5, further comprising the step of obtaining specimens of said treated slurry via said specimen collection conduit.

7.(PREVIOUSLY PRESENTED) The process for subterranean waste disposal and processing within a spent oil well as in claim 6, further comprising the step of electronically monitoring waste products within said spent oil well with said electronic monitoring pipe.

8.(PREVIOUSLY PRESENTED) The process for subterranean waste disposal and processing within a spent oil well of claim 7, further comprising the step of vertically displacing said chamber extracting conduit and obtaining gaseous samples at different levels within said spent oil well.

9. (CANCELLED)

10. (PREVIOUSLY PRESENTED) The process for subterranean waste disposal and processing within a spent oil well as in claim 8, wherein further comprising the step of burning methane gas harvested from said spent oil well for the production of electricity via said gas-burning electricity generating subsystem.

11. (PREVIOUSLY PRESENTED) A system for subterranean waste disposal and processing within a spent oil well, said system comprising:

1) a sealed, empty, subterranean, spent oil well containing halophilic,

thermophilic, and methanogenic microbes therein;

2) a waste receiving and processing system, said waste receiving and processing system comprising a series of buildings and plants in operative communication with one another and a series of pipes operatively connecting said buildings and plants of the waste receiving and processing system to said subterranean spent oil well,

said waste receiving and processing system having:

- a) a waste receiving and mechanical processing plant,
- b) a pumping plant, and
- c) a redox tank, and
- d) an equipment housing building.

12. (PREVIOUSLY PRESENTED) The system for subterranean waste disposal and processing within a spent oil well, as in claim 11, wherein said equipment housing building comprises:

- a) a ventilation conduit,
- b) a specimen collection conduit
- c) an electronic monitoring pipe,
- d) a displaceable chamber extraction conduit, said chamber extraction conduit having displacement means connected thereto for vertical displacement of said chamber extraction conduit, thereby enabling gaseous samples to be obtained from different levels within said spent oil well, and
- e) a gas-burning electricity generating subsystem.

13. (CANCELLED)